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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,230	01/31/2005	Jonathan Hughes	1A/3-22332/PCT	8037

324 7590 02/28/2007  
CIBA SPECIALTY CHEMICALS CORPORATION  
PATENT DEPARTMENT  
540 WHITE PLAINS RD  
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TARRYTOWN, NY 10591-9005

EXAMINER
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MACAULEY, SHERIDAN R

ART UNIT	PAPER NUMBER
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1609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	02/28/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/523,230

Applicant(s)

HUGHES, JONATHAN

Examiner

Sheridan R. MacAuley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/2/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-21 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The groups of species are as follows:

- A. The various species of plant derived material recited in claim 2. For example, applicant could elect herbaceous biomass, sewage sludge or paper mill sludge.
- B. The species of acids recited in claim 5. Applicant may elect sulphuric acid or hydrochloric acid.
- C. The various species of flocculating agents recited in claims 8-12. For example, applicant could elect polyacrylate salts (recited in claim 10), copolymers of acrylamide with methacrylic acid (recited in claim 10), swellable clays (recited in claim 12), or amphoteric microparticulate silica based material (recited in claim 12). If applicant elects a flocculation method requiring more than one flocculation agent (see species group D), election is required of a specific combination of the flocculating agents recited in claims 8-12, for example, applicant may elect polyacrylate salts and swellable clays.

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- D. The various species of flocculation methods recited in claims 13-17. For example, applicant may elect a method in which flocculation is effected by employing a water-soluble or water-swellaable polymer and a charged microparticulate material (recited in claim 13) or a process where flocculation is effected by introducing a cationic polymer into the mixture and then reflocculating by adding an anionic microparticulate material (recited in claim 15). Please note that election is required of specific polymers and microparticulate materials (see species group C).
- E. The various species of fermentation products recited in claim 19. For example, applicant could elect ethanol, acetone or methane.
- F. The species of methods for separation of the fermentation product from the broth recited in claims 20 and 21. For example, applicant may elect separation by distillation (recited in claim 20) or by ion exchange (recited in claim 21).

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

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are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The claims are deemed to correspond to the species listed above in the following manner:

The species set forth above recite limitations to independent claim 1.

The following claim(s) are generic: Claim 1.

3. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Brink (US Pat. 4,384,897, cited in IDS) anticipates the method recited in independent claim 1 of the instant application. Specifically, Brink discloses a method of producing a fermentation product comprising the steps of forming an acidified suspension of particulate plant derived material comprising a first polysaccharide which is more readily hydrolysable and a second polysaccharide which is more difficult to hydrolyse (col. 1, lines 4-10; col. 1 lines 16-21; col. 1 lines 36-40; col. 2, lines 32-41). Brink discloses hydrolysis of the first polysaccharide by action of an acid at a temperature of at least 50 C (col 1, lines 16-21; col 1, lines 36-40), subjecting the mixture to a separation step in which the solid residue and aqueous sugar mixture are separated from each other (col 2, lines 48-52), passing the solid cellulosic residue to a further treatment stage in which the residue is subjected to the action of acid at a temperature of at least 50 C (col 3, lines 58-63; col 1, lines 25-27), subjecting the mixture to a separation stage in which the solid residue and aqueous sugar mixture are separated from each other (col 4, lines 10-12), adjusting the pH of the aqueous liquor (col 5, line 61-67), passing the aqueous liquor from a fermentation stage where the dissolved sugars are acted upon by a microorganism in a fermentation broth to produce a fermentation product (col. 1, lines 54-56), and separating the fermentation product from the broth (col. 1, lines 56-58). Brink teaches that the separation stage is assisted by flocculation employing a flocculation agent consisting of charged microparticulate materials (col 10, lines 59-63). Therefore, the disclosed inventions do not share a special technical feature that makes a contribution over the prior art.

4. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

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The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheridan R. MacAuley whose telephone number is (571) 270-3056. The examiner can normally be reached on Mon-Thurs, 7:30AM-5:00PM EST, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mary Mosher can be reached on (571) 272-0906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SRM

ZACHARIAH LUCAS  
PATENT EXAMINER

